

REMARKS

Entry of the amendments is respectfully requested. Claim 1 has been amended to include the term “segment” that was in the claim as originally filed, but was inadvertently removed in a prior amendment. No new matter is added. The amendment to claim 1 is non-limiting and is not made to overcome the prior art. Claims 1-11 and 19-31 are pending in the application.

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

**1. Rejection under 35 U.S.C. § 103(a)**

Claims 1-11 and 19-31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wong et al. (“Wong,” US 6,260,021) in view of Mukherjee (“Mukherjee,” US 6,314,415). Applicant respectfully traverses the rejection.

Each of independent claims 1, 7, 19 and 22 recite, among other limitations, a feature relating to converting a first user interface of a first component or application and a second user interface of a second component or application to a uniform user interface. Independent claim 1 recites:

a container application having a first user interface layer in communication with the first component and a second user interface layer in communication with the second component, wherein the first and second user interface layers are configured to convert the first user interface code segment of the first component and the second user interface code segment of the second component to a uniform user interface and to communicate patient

data between the functionality code segments of the first and second components, respectively, and the uniform user interface.

Independent claim 7 recites:

a data manager in communication with the first and second applications, wherein the data manager includes a user interface code segment in communication with the first and second applications for converting the first user interface and the second user interface to a uniform user interface. . .

Independent 9 recites:

third means for communicating between the first and second means, for receiving patient image data and patient text data from the first and second means, for converting the first user interface means and the second user interface means to a uniform user interface. . .

Independent claim 22 recites:

converting the first user interface and the second user interface to a uniform user interface.

As discussed in an exemplary embodiment in the specification, a container application can be configured to integrate the functionality of a first component or application (e.g., a PACS component), a second component or application (e.g., a RIS component) and other components or applications. The first component and the second component each include a user interface. The first and second user interfaces may receive user input and/or generate display signals for a user display. The user interface layers of the container application control the user interfaces of the first and second components. In this exemplary embodiment, the user interface layers can be configured to convert the user interfaces (e.g., customized aspects of the user interfaces) of the first and second components to a uniform user interface format.

In contrast, neither Wong nor Mukherjee, in combination or alone, discloses, teaches or suggests converting a first user interface of a first component or application and a second user

interface of a second component or application into a uniform user interface. Rather, Wong teaches a three tiered object-oriented system for medical image distribution. The third tier includes client systems that each have object oriented GUI's (graphical user interfaces). See, Wong, col. 8, lines 53-59. Wong discloses:

“In a preferred embodiment, the client GUI is implemented as an object-oriented interface, components of which are downloaded as needed from image server 12.” Wong, Figure 1, col. 8, lines 65-67.

“In the preferred embodiment, the Java application or applets can be downloaded dynamically when a health-care user accesses the image distribution system and requests particular image data. In that manner, the GUI appropriate for the particular user, the particular workstation, and the particular image data can be made available at any user access equipment. Since the GUI components necessary for particular information or images are downloaded with the images, the most appropriate image display can always be assured throughout the system. A further advantage of the latter arrangement is that display of new types of information can be automatically and routinely provided for by simply downloading new Java-coded GUI objects for their display” Wong, col. 9, lines 8-21.

“Alternatively, where the network links to a particular workstation have low bandwidth, certain base GUI components can be cached on the workstation. In a further alternative, the entire GUI can be present on the workstation and coded in another object-oriented language, such as C++.” Wong, col. 9, lines 25-30.

“[W]eb server 56 provides infrastructure, non-object-oriented functions necessary for initiating and maintaining user sessions. . . .After a session is started, this server downloads GUI components as needed for the medical image and report information to be displayed. . . . Alternatively, where part of the GUI are cached or resident on a client workstation, web browser 56 may need only to provide for session initiation.” Wong, col. 12, lines 6-19.

“Web server data segment 94 primarily includes data needed for download to client workstations. This data includes initial presentation information stored in HTML/XML page

component 96. The web server also downloads appropriate components of the GUI as needed for entry of users requests and for display of image data.” Wong, Figure 3, col. 13, lines 34-44.

Wong teaches that when a request for image data is made, the client system downloads the appropriate GUI or retrieves the appropriate GUI (if resident or cached on the client workstation) for the particular image data, user and workstation, as needed. See also, Wong, col. 14, lines 53-58. Wong, however, does not disclose, teach or suggest converting a first user interface of a first component and a second user interface of a second component to a uniform user interface. In addition, the Examiner admits that Wong does not teach or suggest “to communicate patient data between the functionality code segments of the first and second components, respectively, and the uniform user interface” as recited in claim 1, “a data manager in communication with the first and second applications, wherein the data manager includes a user interface code segment in communication with the first and second applications for converting the first user interface and the second user interface to a uniform user interface and for receiving the patient image data and patient text data for generating display signals based on the patient image data and the patient text data according to a predetermined display format” as recited in claim 7, “third means for communicating between the first and second means, for receiving patient image data and patient text data from the first and second means, for converting the first user interface means and the second user interface means to a uniform user interface and for displaying the patient image data and patient text data according to a predetermined display format” as recited in claim 19.

Further, Wong in combination with Mukherjee also does not teach or suggest converting a first user interface of a first component or application and a second user interface of a second component or application to a uniform user interface. Mukherjee does not teach or suggest this feature. Rather Mukherjee discloses a system and method that uses high-level rules for dynamically determining what graphical interface features should be displayed to a user. See, Mukherjee, Abstract, col. 2, lines 24-28, lines 45-48 and lines 51-61. Such a system advantageously reduces the redundancy an irrelevant information that may be found in multiple

paper forms (or computer systems for providing computerized versions of paper forms) used in various transactions, for example, an employment action such as hiring a new employee. See, Mukherjee, col. 1, lines 35-37 and col. 2, lines 19-24. In the system disclosed in Mukherjee, paper forms may be scanned and stored in electronic form. See, Mukherjee, Figure 4, col. 11, lines 37-52. Once the fields of the various paper forms are tagged and prompts for the forms defined, expert system rules are defined and associated with the prompts that will be displayed on the user interface. See, Mukherjee, Figure 4, col. 11, line 53 to col. 13, line 11. A display generator generates graphical user interface components in response to the firing of expert system rules which are fired in response to user inputs to the user interface. See, Mukherjee, Figure 1, col. 5, lines 34-45. Accordingly, the prompts displayed on the graphical interface are dynamically changed in response to data entered by the user. See, Mukherjee, col. 5, lines 41-45 and col. 7, lines 28-34. Each user may see different prompts depending on the data entered by the user. Mukherjee, however, does not teach or suggest converting a first user interface of a first component or application and a second user interface of a second component or application to a uniform user interface.

Accordingly, even if properly combinable, the combination of Wong and Mukherjee would not result in the claimed invention. Rather, the combination would result in dynamically generating the graphical user interface components, in particular the prompts to be displayed, that are downloaded to or resident on the client workstation of Wong based on user inputs. The combination of Wong and Mukherjee would not provide any teaching or suggestion of a container application having first and second user interface layers configured to convert a first user interface code segment of a first component and a second user interface code segment of a second component to a uniform user interface.

Further, Mukherjee does not disclose or identify the problem of providing a uniform user interface format in a system including multiple applications having user interfaces that have an inconsistent look and feel (e.g., each user interface may be configured by a different entity). Rather, as discussed above, Mukherjee deals with reducing the redundant and unnecessary

information in multiple paper forms that must be completed for various transactions and in the computerized software that presents computerized versions of the paper forms. See, Mukherjee, Abstract, col. 1, line 18 to col. 2, line 16 and col. 2, lines 19-24. Mukherjee is not concerned with problems encountered with inconsistent user interfaces.

Neither Wong nor Mukherjee, in combination or alone, teaches or suggests converting a first user interface of a first component or application and a second user interface of a second component or application to a uniform user interface. Accordingly, claims 1, 7, 19 and 22 are believed to be allowable.

Claims 2-6 and 28-31 depend from claim 1 and incorporate all of the limitations of claim 1 and are therefore allowable over Wong in view of Mukherjee for, among other reasons, the same reasons as given above with respect to claim 1.

Claims 8-11 depend from claim 7 and incorporate all of the limitations of claim 7 and are therefore allowable over Wong in view of Mukherjee for, among other reasons, the same reasons as given above with respect to claim 7.

Claims 20-21 depend from claim 19 and incorporate all of the limitations of claim 19 and are therefore allowable over Wong in view of Mukherjee for, among other reasons, the same reasons as given above with respect to claim 19.

Claims 23- 27 depend from claim 22 and incorporate all of the limitations of claim 22 and are therefore allowable over Wong in view of Mukherjee for, among other reasons, the same reasons as given above with respect to claim 22.

Accordingly, claim 1-11 and 19-31 are believed to be allowable. Withdrawal of the rejection under 35 U.S.C. § 103(a) and allowance of claims 1-11 and 19-31 is respectfully requested.

## **2. Conclusion**

Applicant believes that the present application is now in condition for allowance.  
Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 06-1447. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1447. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 06-1447.

Respectfully submitted,

Date 12/12/03

FOLEY & LARDNER  
777 East Wisconsin Avenue, Suite 3800  
Milwaukee, Wisconsin 53202-5306  
Telephone: (414) 297-5531  
Facsimile: (414) 297-4900

By Jean M. Tibbetts  
Jean M. Tibbetts  
Attorney for Applicant  
Registration No. 43,193